

# Fact Sheet



## For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on February 17, 2010.

Permit Number: **R30-02900008-2010**

Application Received: **March 27, 2012 (MM04); October 22, 2012 (MM05);  
July 29, 2013 (MM06)**

Plant Identification Number: **03-54-029-00008**

Permittee: **Ergon - West Virginia, Inc.**

Mailing Address: **P.O. Box 356, Newell, WV 26050**

Permit Action Number: *MM04, MM05, and MM06* Revised: *May 6, 2014*

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Physical Location:	Newell, Hancock County, West Virginia
UTM Coordinates:	531.25 km Easting • 4495.35 km Northing • Zone 17
Directions:	Two miles south of Newell on State Route 2.

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### Facility Description

Ergon - West Virginia, Inc. (EWVI) owns and operates a petroleum refinery (SIC 2911 and NAICS 32411) in Newell, West Virginia. The refinery processes crude oil and produces several petroleum products such as diesel, gasoline, kerosene, and crude oils. The facility has the potential to operate twenty-four (24) hours a day for seven (7) days per week.

This minor modification reflects the changes to Permits R13-2334S, R13-2334T, R13-2334U, and R13-2334V in the Title V Permit submitted as minor modification applications MM04, MM05, and MM06. R13-2334S is for: (1) replacement of heaters H-101 and H-102 with H-101R and H-102R in order to increase reliability and provide energy savings; (2) installation of a new tank (Tank 4063); (3) construction of a new ISOM unit; (4) an increase in the throughput of the crude distillation unit (CDU) from 20,000 bpd to 23,000 bpd; (5) a change to the throughputs for Tanks 4000, 4001, 4060, and 4061 because of the CDU throughput increase; (6) a change to the Truck Loading Rack and the Marine Loading Dock throughputs because of the CDU throughput increase; (7) changing Tank 4002 contents to diesel; (8) changing Tank 4062 contents to crude oil with a vapor pressure of less than or equal to 11.0 psia; and (9) installation of a new thermal oxidizer at the marine loading dock.

R13-2334T is for revamping the Unifiner/Platform (Unifiner) to increase the capacity and to replace the current H-501 heater. This modification includes the following changes: (1) replacement of Heater H-501 with H-501R; (2) replacement of reactor R-501 with R-501R; and (3) increase in the overall throughput capacity on the Unifiner (219,000 barrels per month). The Unifiner capacity increase will cause an increase in throughput and a change in emissions for: (1) Tanks 4004, 4006, 4014, 4015, and 4050; (2) truck loading operations (T Load); and (3) the truck loading thermal oxidizer (OXIDIZER). In addition to the above, EWVI updated the PM emissions for the flare and H-101R and H-102R heaters to correct previous emission calculations.

R13-2334U is for correcting and amending language in R13-2334T.

R13-2334V is for changing the throughput limits at the truck and marine loading facilities which affected the design capacities in Section 1.1, the emission limitations in Section 5.1.9, and the throughput limits in Section 5.1.10 of the Title V permit.

## Emissions Summary

With the proposed changes in Permits R13-2334S, R13-2334T, R13-2334U, and R13-2334V and Title V minor modifications MM04, MM05, and MM06, the facility's new potential to emit is:

Plantwide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	240.97
Nitrogen Oxides (NO <sub>x</sub> )	206.56
Particulate Matter (PM <sub>10</sub> )	23.99
Total Particulate Matter (TSP)	23.99
Sulfur Dioxide (SO <sub>2</sub> )	76.79
Volatile Organic Compounds (VOC)	127.69
Hazardous Air Pollutants	Potential Emissions
Benzene	1.76
Hexane	3.92
Iso-Octane	1.66
Toluene	4.16
Ethylbenzene	1.06
Xylene	4.27
Isopropyl Benzene	0.46
Total HAPs	17.29

## Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit over 100 tons per year of carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), and volatile organic compounds (VOC). Due to this facility's potential to emit over 100 tons per year of criteria pollutants, Ergon - West Virginia, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

## Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchanger
	45CSR6	To Prevent and Control Air Pollution from Combustion of Refuse and open burning prohibited
	45CSR10	To Prevent and Control Air Pollution from the Emissions of Sulfur Dioxides
	45CSR13	Permits for Construction, Modification, Relocation and Operation of Stationary Sources
	45CSR16	Performance Standards Pursuant to 40 C.F.R. Part 60
	45CSR30	Operating permit requirement
	45CSR34	Emission Standards for Hazardous Air Pollutants
	40 C.F.R. Part 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
	40 C.F.R. Part 60 Subpart Ja	Standards of Performance for Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after May 14, 2007
	40 C.F.R. Part 60 Subpart GGGa	Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after November 7, 2006
	40 C.F.R. Part 63 Subpart Y	National Emission Standards for Marine Tank Vessel Loading Operations

State Only: None

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

### Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-2334V	January 10, 2014	R13-2334S; Issued: September 18, 2012 R13-2334T; Issued: April 15, 2013 R13-2334U; Issued: November 12, 2013
Consent Decree Civil NO. 3:03CV114010S	September 30, 2003	
CO-SIP-95-1	January 9, 1995	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

### Determinations and Justifications

This Title V minor modification includes the revisions under the separate permitting actions MM04, MM05, and MM06. The discussion below details the changes to the 45CSR13 permits and how the Title V operating permit is revised to incorporate the changes.

#### Summary of 45CSR13 Changes

R13-2334S was issued by the Director on September 18, 2012. The following addresses the changes:

1. Replacement of heaters H-101 and H-102 with heaters H-101R and H-102R, respectively.
2. Installation of a new ISOM unit.
3. Installation of a new thermal oxidizer (MLDOX) at the Marine Loading Dock.
4. Installation of a new tank (TK 4063) which will contain crude oil with a vapor pressure of less than or equal to 11.0 psia.
5. An increase in the throughput of the Crude Distillation Unit (CDU).

6. Throughput changes for Tanks 4000, 4001, 4060, and 4061 due to the crude distillation unit throughput increases. The design capacity for these tanks did not change.
7. The contents of Tank 4062 will change. Tank 4062 will contain crude oil with a vapor pressure of less than or equal to 11.0 psia instead of 9.0 psia.
8. The change in the crude distillation unit throughput will affect the Marine Loading Dock throughput. The design capacity for the Marine Loading Dock changed from 135.49 to 440.6 MMgal per year.
9. TK 4002 will change service from crude oil to diesel.

R13-2334T was issued by the Director on April 15, 2013. The following addresses the changes:

1. Heater H-501R replaces Heater H-501. Heater H-501R will be an independent emission point unlike Heater H-501 which was previously associated with a series of heaters that have an emission point ID of H-500S. H-501R is the Unifiner Charge Heater with a design capacity of 11.5 MMBtu/hr. Heater H-501R will be equipped with Ultra Low NO<sub>x</sub> burners.
2. The Unifiner throughput will increase to 219,000 barrels per month. Unifiner treats naphtha from the Crude Distillation Unit (CDU) in preparation for conversion to gasoline blends. Reactor R-501 will be replaced with reactor R-501R. Since the R-501R reactor is fully contained within the Unifiner, R-501R will not be an additional source of emissions.
3. The H-500s series design capacity was decreased from 67.1 to 59.6 MMBtu/hr as a result of H-501 being removed from the H-500s series of heaters (see Item 1).
4. The truck loading (T Load) operation and truck loading thermal oxidizer (OXIDIZER) throughput capacities will increase because of the increase to the Unifiner throughput. The design capacity for truck loading (T Load) will increase from 404.8 to 418.34 MMgal/yr.
5. Tanks 4004, 4006, 4014, 4015 and 4050 emissions will increase because of the finished gasoline increases due to the Unifiner increase. The design capacity for these tanks will not be altered.
6. The flare calculations were corrected because of an error in the previous calculation methodology.
7. H-101R and H-102R PM emissions were modified to correct an emission factor used in the previous calculations for R13-2334S.

R13-2334U was issued by the Director on November 12, 2013. The purpose of the Class II Administrative update was to correct and amend language in R13-2334T for Conditions 4.1.15, 4.1.17, 4.3.1, 4.4.1, 5.1.8, 5.1.10, 5.1.11, 5.1.12, 5.2.5, 5.3.3, 5.4.5, and 5.5.2.

R13-2334V was issued by the Director on January 10, 2014. The following address the changes:

1. Decrease the Truck Loading (009-01) design capacity from 418.34 MMgal/yr to 397.8 MMgal/yr.
2. Increase the Marine Barge Loading (009-02) design capacity from 440.6 MMgal/yr to 460.7 MMgal/yr.
3. Modify the hourly and annual VOC and Total HAPs emissions for the TLoad Oxidizer.
4. Decrease the Truck Loading (009-01) Lube Oil/Heavy Products throughput limit from 157,500 Mgal/yr to 136,920 Mgal/yr.

5. Increase the Marine Barge Loading (009-02) Lube Oil/Heavy Products throughput limit from 10,500 Mgal/yr to 30,660 Mgal/yr.

Changes to the Title V Permit as a Result of this Modification

As a result of the 45CSR13 changes, the following changes were made to the Title V permit under minor modifications MM04, MM05, and MM06:

1. The “Table of Contents” was updated to: include H-101R, H-102R, and H-501R in Section 4.0; add MLD and MLDOX in Section 5.0; and add ISOM and Unifiner in Section 6.0.
2. The Emission Unit Table 1.1 was revised in accordance with the changes permitted under R13-2334S, R13-2334T, R13-2334U, and R13-2334V.
3. Section 1.2, for “Emission Units and Active R13, R14, and R19 Permits” was updated from R13-2334R with an issued date of December 29, 2011 to R13-2334V with an issued date of January 10, 2014.
4. The citation in Section 3.1.11 was revised from 4.1.24 to 4.1.5 to concur with R13-2334V.
5. In Section 3.1.15, R13-2334S, R13-2334T, R13-2334U, R13-2334V were added to the list of current permit applications.
6. The citation in Section 3.4.4 was revised from 3.4.2 to 4.4.2 to concur with 13-2334V.
7. In Section 3.5.3, USEPA Region III address was corrected.
8. The Section 3.7.2 list for non-applicable determinations was revised as follows:
  - 8.1. 40 C.F.R. 60, Subpart GGG was removed. Ergon is subject to this regulation.
  - 8.2. The following were added to the non-applicable determinations list:

40 C.F.R. Part 60 Subpart Dc	40 C.F.R. Part 63 Subpart DDDDD
40 C.F.R. Part 60 Subpart XX	40 C.F.R. Part 63 Subpart BBBB
40 C.F.R. Part 60 Subpart RRR	40 C.F.R. Part 63 Subpart JJJJJ

9. This table shows the listing of changes to the Title V permit as a result of replacing H-101 and H-102 with H-101R and H-102R, and adding H-501R:

<b>Changes for replacing H-101 and H-102 with H-101R and H-102R</b>	<b>Changes for the addition of H-501R</b>
Section 4.0 heading	Section 4.0 heading
Table in Section 4.0	Table in Section 4.0
Section 4.1.7 table and PM emission limits	Section 4.1.7 table and PM emission limits
Headings for Sections 4.1.12 and 4.1.13	Heading for Section 4.1.13
Heading and emission limits for Section 4.1.18	Heading and emission limits for Section 4.1.18
Heading for Section 4.1.25	Emission limits in Section 4.1.22
Addition of Sections 4.1.26 and 4.1.27	Addition of Sections 4.1.26 and 4.1.27
Heading for Sections 4.2.2, 4.2.7, 4.2.8, 4.2.9,	Heading for Sections 4.2.2 and 4.2.8

Changes for replacing H-101 and H-102 with H-101R and H-102R	Changes for the addition of H-501R
and 4.2.10	
Addition of Section 4.2.14	Addition of Section 4.2.14
Addition of Section 4.3.1	Heading for Sections 4.4.4 and 4.4.5
Headings for Sections 4.3.3 and 4.3.5	Heading for Sections 4.4.6 and 4.4.7
Heading for Sections 4.4.4 and 4.4.5	Heading for Sections 4.4.10 - 4.4.12
Heading for Sections 4.4.6 and 4.4.7	Addition of Section 4.4.16
Heading for Sections 4.4.10 - 4.4.12	Heading for Sections 4.5.1 and 4.5.2
Addition of Section 4.4.16	Addition of Sections 4.5.7 and 4.5.8
Heading for Sections 4.5.1 – 4.5.4	
Addition of Sections 4.5.7 and 4.5.8	

10. The following table shows the citation changes in Sections 4.0, 5.0, and 6.0 with respect to R13-2334V.

Section 4.0 Citation Changes	Section 5.0 Citation Changes	Section 6.0 Citation Changes
4.1.7	5.1.1	6.1.2
4.1.8	5.1.2	6.1.3
4.1.9	5.1.3	6.1.4
4.1.11	5.1.4	6.4.2
4.1.12	5.1.6	
4.1.13	5.1.7	
4.1.14	5.1.8	
4.1.17	5.1.11	
4.1.18		
4.1.19		
4.1.20		
4.1.22		
4.1.23		
4.1.24		
4.1.25		
4.2.3		
4.2.8		
4.2.11		
4.2.12		

11. The particulate matter emission limits for H-101R (formerly H-101), H-102R (formerly H-102), and H-500s were revised in the Section 4.1.7 Table from 5.22 to 4.91 LB/hour, 2.23 to 2.65 LB/hour, and 6.04 to 5.36 LB/hour, respectively. The H-501R particulate matter emission limit of 1.04 LB/hour was also added.
12. The H-101R and H-102R emission limits replaced H-101 and H-102 emission limits in Section 4.1.18 table. In the Section 4.1.18 requirement, replaced “Crude oil distillation unit heaters” with “Process heaters.” Changed the NO<sub>x</sub> emission limit for H-101R from 0.065 lb/mmBtu to 0.040 lb/mmBtu; and changed the NO<sub>x</sub> averaging period from “based on a three-hour averaging period” to “determined daily on a 30-day rolling average basis” based on the requirements of 40 C.F.R. 60, Subpart Ja. Also, the emission limits for H-501R were incorporated in Section 4.1.18 table. These changes coincide with Conditions 4.1.15 and 4.1.16 in R13-2334V.

13. The emission limits for H-500s were revised in Section 4.1.22 table in accordance with Condition 4.1.22 in R13-2334V.
14. The 40 C.F.R. Part 60 Subpart Ja requirements for H-101R, H-102R, and H-501R were addressed in Conditions 4.1.18, 4.1.26, 4.1.27, 4.2.14, 4.3.1, 4.4.16, 4.5.7, and 4.5.8 which correspond to Conditions 4.1.15, 4.1.17, 4.1.18, 4.1.19, 4.2.7, 4.3.1, 4.4.18, and 4.5.5 of R13-2334V. Headings for these sections are “Heaters H-101R, H-102R, and H-501R.”
15. The replacement heaters H-101R, H-102R, and H-501R are not subject to the “Consent Decree Civil No. 3:03SV114010S.” The consent decree was removed from the Section 4.1.18 citation since heaters H-101R, H-102R, and H-501R are not subject to the consent decree. In sections 4.1.25 and 4.2.9, H-101 and H-102 were removed from the heading since this equipment has been removed.
16. The replacement heaters H-101R, H-102R, and H-501R are not subject to the “Consent Order: CO-SIP-95-1.” The consent order is cited in Sections 4.2.2, 4.2.7, 4.2.9, 4.2.10, 4.3.3, 4.3.5, 4.4.7, 4.5.3, and 4.5.4 of the Title V permit with conditions that formerly applied to H-101 and H-102. In cases where the requirement is only for H-101R, H-102R, and H-501R, the citation for the consent order was removed. In cases where other equipment is referenced for which the consent order still applies, the citation remains, but references to H-101 and H-102 have been removed or it was clarified that the consent order does not apply to new equipment H-101R, H-102R, and H-501R.
17. Section 4.4.10 was revised in accordance with the changes in R13-2334V.
18. Marine Barge Loading (MLD) was relocated from Section 6.0 to Section 5.0. The Section 5.0 header was revised to include MLD and the addition of Barge Loading Thermal Oxidizer (MLDOX). This change and addition corresponds to R13-2334V.
19. Sections 5.1.2 and 5.1.3 of the previous Title V were merged with Section 5.1.1 in this Title V permit. Section 5.1.1 table was also revised to include MLDOX’s maximum particulate matter (PM) emission limit. This coincides with Condition 5.1.6 in R13-2334V. The remaining sections were renumbered accordingly.
20. Section 5.1.3 (previously Section 5.1.5) was revised by adding “For control devices F1” to the first sentence of the requirement. Section 5.1.3 corresponds to Condition 5.1.9 of R13-2334V.
21. Section 5.1.4 (previously Section 5.1.6) was revised in accordance with section 5.1.3 of R13-2334V. The VOC emissions table for truck loading (T LOAD OXIDIZER) and Flare (F1) that were formerly in Sections 5.1.6 and 5.1.7 were merged as Section 5.1.9. The emissions were also revised in accordance with the Condition 5.1.1 table in R13-2334V. The remaining sections of the Title V permit were renumbered accordingly.
22. Section 5.1.9 table includes the emission limits for the flare (F1), truck loading thermal oxidizer (T Load OXIDIZER), and barge loading thermal oxidizer (MLDOX) from the Condition 5.1.1 Table of R13-2334V. The emission limits from the marine barge loading [MLD] were previously included as Condition 6.1.2. Section 5.1.9 matches Condition 5.1.1 of R13-2334V.
23. Section 5.1.10 table includes truck and marine loading annual throughput limits of various products and the Main/Sour Gas Flare’s annual hours of operation limit. The Marine Loading Dock throughput limits were relocated from Condition 6.1.4 and revised. The truck product loading throughput limits of various products were an addition to the table. Section 5.1.10 concurs with Condition 5.1.2 in R13-2334V.
24. Condition 5.1.12 was relocated from Section 6.0 and was formerly condition 6.1.3.



25. New condition 5.1.13 is from Section 5.1.4 of R13-2334V.
26. Sections 5.2.4, 5.3.3, 5.4.4, and 5.5.2 are requirements from 40 C.F.R. Part 60 for the MLDOX and OXIDIZER. Section 5.2.4 (cited as 45CSR§30-12.7) for the OXIDIZER was replaced with the monitoring requirements from 40 C.F.R. § 60.13. The MLDOX was included with these requirements. These correspond to Conditions 5.2.4, 5.3.2, 5.4.4, and 5.5.2 of R13-2334V.
27. Section 5.2.2 was revised by deleting “records of” and replacing Section 5.1.7 with 5.1.9. This concurs with Condition 5.2.2 of R13-2334V.
28. Section 5.2.3 was revised by replacing Section 5.1.6 with 5.1.9. This concurs with Condition 5.2.3 of R13-2334V.
29. Section 5.3.2 is for the initial performance test of the MLDOX. This test is to determine if the device meets the minimum requirement of 98% control efficiency. This corresponds to Condition 5.3.1 of R13-2334V.
30. Section 5.3.4 requires the owner or operator to calculate an annual estimate of HAP emissions from gasoline and light crude oil from marine tank vessel loading operations. Section 5.4.5 requires retaining the emission estimate records as determined in 40 C.F.R. §63.565(l). These are applicable requirements under 40 C.F.R. Part 63 Subpart Y, which correspond to Conditions 5.3.4 and 5.4.6 of R13-2334V.
31. Section 5.4.1 was revised to concur with Condition 5.4.1 of R13-2334V. The marine barge loading recordkeeping requirements were formerly in Section 6.4.2.
32. Section 5.4.2 was revised by replacing “5.1.6” with “5.1.9”.
33. Section 5.4.3 was added for maintaining records of the hours that non-pilot emissions are sent to the flare (F1). Section 5.4.3 matches Condition 5.4.3 of R13-2334V.
34. The Section 6.0 header was revised to include ISOM and UNIFINER. MLD was relocated to Section 5.0.
35. In Section 6.1.1, the monthly and annual crude oil charge rates into the crude oil distillation unit were revised from 730,000 to 803,000 barrels per month and 7,300,000 to 8,030,000 barrels per year. This coincides with R13-2334V, Condition 6.1.1.
36. Sections 6.1.2, 6.1.3, and 6.1.4 in the previous Title V were relocated to Sections 5.1.9, 5.1.12, and 5.1.10, respectively. These correspond to Conditions 5.1.1, 5.1.5, and 5.1.2 of R13-2334V. The remaining sections of Section 6.1 in this Title V were renumbered accordingly.
37. Section 6.1.5 was added to include the ISOM unit’s fugitive VOC and HAP emission limits. Section 6.1.5 corresponds to Condition 6.1.5 of R13-2334V.
38. Section 6.1.6 states that the permittee is subject to 40 C.F.R. Part 60 Subpart VVa, which agrees with Condition 6.1.6 in R13-2334V.
39. Section 6.4.2 of the previous Title V permit was merged with Section 5.4.1. This agrees with Condition 5.4.1 of R13-2334V.

40. Section 6.4.3 in the previous permit was deleted. The benzene recordkeeping requirements for the marine barge loading operation are included in Condition 5.4.2.
41. Section 6.4.4 of the previous Title V was renumbered as Section 6.4.2 and revised in accordance with Condition 6.2.2 of R13-2334V.
42. The Section 7.0 table was deleted. At the beginning of each requirement for 40 C.F.R. 60, Subparts K, Ka, or Kb, the tanks for which those requirements apply are listed. There is no longer a need to have a separate table listing the applicable requirements for the tanks.
43. Section 7.1.1 and its table were revised to concur with Condition 7.1.1 of R13-2334V. The VOC emission limits were relocated from Section 7.1.1 of the previous Title V permit to 7.1.2 of this Title V permit.
44. The Section 7.1.2 requirement and table were revised according to Condition 7.1.2 of R13-2334V. In the previous Title V permit, Section 7.1.1 included VOC and Benzene TPM and TPY emission limits and 7.1.2 had speciated HAP TPY emission limits. The emission limits have been combined into one Table in Section 7.1.2 and have TPM and TPY limits for Total VOC, Benzene, and Total HAP.
45. To correspond with Condition 7.1.4 of R13-2334V, Tank 4001 was removed from the list of tanks in Section 7.1.4.
46. In Sections 7.1.5 and 7.4.3, Tanks 4001 and 4035 were removed from the list of tanks subject to 40 C.F.R. 60 Subpart K. Tank 4035 is subject to 40 C.F.R. 60 Subpart Ka, and has been added to Section 7.1.6 because it was installed in 1983. Because of modifications to Tank 4001, it is now subject to 40 C.F.R. 60 Subpart Kb. Also, language was added to indicate that the applicable requirements in Sections 7.1.5 and 7.4.3 are from 40 C.F.R. 60 Subpart K.
47. Tanks 4035, 4040, 4042, 4043, 4044, 4045, and 4046 are subject to 40 C.F.R. 60 Subpart Ka. The applicable requirements for 40 C.F.R. 60 Subpart Ka were added as Sections 7.1.6, 7.2.3, and 7.4.4.
48. Tanks 4001, 4004, 4006, 4014, 4015, 4050, 4055, and 4063 were added to the list of tanks in Section 7.1.7 (formerly Section 7.1.6) which are subject to 40 C.F.R. 60 Subpart Kb. These tanks were constructed, modified, or reconstructed after July 23, 1984. In addition, language was added to Section 7.1.7 indicating that the applicable requirements are from 40 C.F.R. 60 Subpart Kb.
49. The reference to Section 7.1.3 in Section 7.2.1 was removed to correspond with the changes to Condition 7.2.1 in R13-2334V. Please note that in the Title V permit, Sections 7.1.4 and 7.1.5 of R13-2334V are merged into Condition 7.1.4.
50. Tanks 4001, 4004, 4006, 4014, 4015, and 4063 were added to the list of tanks in Section 7.2.2 which are subject to 40 C.F.R. 60 Subpart Kb.

51. Condition 7.3.1 from R13-2334V states the following: “To determine compliance with the VOC emission limit set forth in 7.1.1...” Since 7.1.1 no longer has VOC limits, but has throughput limits for which Condition 7.3.1 of R13-2334V is actually monitoring to demonstrate compliance with the VOC emission limits in Condition 7.1.2, the language incorporated into the Title V permit as Condition 7.4.1 was revised as follows: “To determine compliance with the throughput limits set forth in 7.1.1 and the VOC emission limit set forth in 7.1.2...” The citation for these changes is 45CSR§30-5.1.c.
52. To correspond with Condition 7.3.2 of R13-2334V, “7.1.1. and” was removed from Section 7.4.2.
53. Tanks 4001, 4004, 4006, 4014, 4015, 4050, 4055, and 4063 were added to the list of tanks in Section 7.4.5 (formerly Section 7.4.4) which are subject to 40 C.F.R. 60 Subpart Kb. Also, specific applicable sections of 40 C.F.R. § 60.115b were added.
54. Tanks 4001, 4004, 4006, 4014, 4015, 4050, 4055, and 4063 were added to the list of tanks in Section 7.4.6 (formerly Section 7.4.5) which are subject to 40 C.F.R. 60 Subpart Kb.
55. Leak requirements from 40 C.F.R. 60 Subpart GGGa were included as Sections 10.1.6 through 10.1.8. Leak requirements from 40 C.F.R. 60 Subpart VVa were included as Sections 10.1.9 through 10.1.21, 10.3.1, 10.4.5, and 10.5.4 of the Title V permit. This corresponds to Sections 8.1.6, 8.3.1, 8.4.5, and 8.5.4 in R13-2334V.

#### Applicability of State Rules to New Equipment

#### **45CSR2 – To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers**

New Heaters H-101R, H-102R, and H-501R are subject to the ten (10) percent opacity requirements of 45CSR§2-3.1. To demonstrate compliance with this limit, the permittee will be required to conduct visible emission checks according to Condition 4.2.1.

H-101R, H-102R, and H-501R are subject to the particulate emission limits of 45CSR§2-4. 45CSR§2-4.1.b states that hourly particulate matter emission limits from type 'b' fuel burning units shall be calculated by multiplying 0.09 by the total design heat input. H-101R, H-102R, and H-501R have maximum design heat inputs of 54.5 MMBtu/hr, 29.4 MMBtu/hr, and 11.5 MMBtu/hr. Their corresponding 45CSR§2-4.1.b limits are 4.91 lb/hr, 2.65 lb/hr, and 1.04 lb/hr respectively. According to the information submitted with their permit applications for R13-2334S and R13-2334T, the maximum hourly potential to emit from these sources are well below their 45CSR§2-4.1.b allowable emissions.

45CSR§2-8.4.c and 45CSR§2A-3.1.b exempt fuel burning units which have a Design Heat Input of less than 100 MMBTU/hr from the testing requirements of 45CSR§2-8.1.a and 45CSR§2A-5; and the monitoring requirements of 45CSR§2-8.2 and 45CSR§2A-6. The permittee is required to maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit on a monthly basis in accordance with 45CSR§2-8.3.c.

#### **45CSR6 - Control of Air Pollution from Combustion of Refuse**

New control device MLDOX is subject to the hourly particulate matter emission limit of 45CSR§6-4.1. Based on information from the permit application for R13-2334S, the hourly particulate matter emission limit calculated based on 45CSR§6-4.1 and the incinerator capacity is 12.5 lb/hr. Based on the hourly particulate matter potential to emit submitted in the permit application for R13-2334S, the permittee will be in compliance with this limit. Compliance methods used to demonstrate compliance with the particulate emission limits in Condition 5.1.9 along with opacity monitoring required under 4.2.1 will demonstrate compliance with the 45CSR§6-4.1 hourly particulate matter emission limit.

45CSR§6-4.3 limits the opacity of emissions from MLDOX to less than twenty percent. Compliance with this limit will be shown through visual emission checks required under 4.2.1.

#### **45CSR10 – To Prevent and Control Air Pollution from the Emission of Sulfur Oxides**

H-101R, H-102R, and H-501R are subject to the sulfur dioxide emission limits of 45CSR§10-3.1.e. 45CSR§10-3.1.e states that hourly sulfur dioxide emission limits from type 'b' fuel burning units shall be calculated by multiplying 3.1 by the total design heat input. H-101R, H-102R, and H-501R have maximum design heat inputs of 54.5 MMBtu/hr, 29.4 MMBtu/hr, and 11.5 MMBtu/hr. Their corresponding 45CSR§10-3.1.e limits are 169 lb/hr, 91 lb/hr, and 35.65 lb/hr, respectively. According to the information submitted with their permit applications for R13-2334S and R13-2334T, the maximum hourly sulfur dioxide potential to emit from these sources are well below their 45CSR§10-3.1.e allowable emissions.

To demonstrate compliance with the requirements of 45CSR§10-3, the permittee must conduct testing or monitoring in accordance with 45CSR§10-8.2.c. 45CSR§10-8.2.c specifies either testing, continuous emissions monitoring systems (CEMS), or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit. Ergon is complying through an approved monitoring plan. The 45CSR2 and 45CSR10 monitoring plan in Appendix A has been updated to include the new heaters H-101R, H-102R, and H-501R.

Records of monitoring data required under 45CSR§10-8.3.a shall be maintained in accordance with Condition 4.4.4. Condition 4.4.5 requires the permittee to maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit as specified under 45CSR§10-8.3.c.

#### Applicability of Federal Regulations to New Equipment

#### **40 C.F.R. Part 60 Subpart Ja - Standards of Performance for Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after May 14, 2007**

40 C.F.R. Part 60 Subpart Ja was issued by EPA for process heaters and flares at petroleum refineries on June 24, 2008. The regulation was amended on September 12, 2012 and the stay of effectiveness for the process heater and flare requirements was lifted.

The new process heaters H-101R, H-102R, and H-501R meet the applicability requirements in 40 C.F.R. §§ 60.100a (a) and (b) and are subject 40 C.F.R. Part 60 Subpart Ja. These heaters meet the definition of “natural draft process heaters” which is defined as any process heater in which combustion air is supplied under ambient or negative pressure without the use of an inlet air (forced draft) fan. Process heaters H-101R, H-102R, and H-501R are subject to the following requirements of 40 C.F.R. Part 60 Subpart Ja:

1. Process heaters H-101R, H-102R and H-501R are subject to either an SO<sub>2</sub> emission limit or a fuel gas concentration limit for H<sub>2</sub>S (40 C.F.R. § 60.102a (g) (1) (i) or § 60.102a (g) (1) (ii)). Ergon will demonstrate compliance with the fuel gas concentration limit in 40 C.F.R. §60.102a(g)(1)(ii).
2. Process heater H-101R (greater than 40 MMBtu/hr) is subject to either a NO<sub>x</sub> concentration-based emission limit or a heating value-based NO<sub>x</sub> emission limit, both determined daily on a 30-day rolling average basis (40 C.F.R. § 60.102a (g) (2) (i) (A) or 40 C.F.R. § 60.102a (g) (2) (i) (B)). Ergon will demonstrate compliance with the heating value-based NO<sub>x</sub> emission limit in 40 C.F.R. §60.102a(g)(2)(i)(B).
3. Process heaters H-101R, H-102R, and H-501R are subject to the design, equipment, work practice, or operational standards in 40 C.F.R. §§ 60.103a (c)(2), (d)(1), (d)(5), (e), and (j).
4. Process heaters H-101R, H-102R, and H-501R, are subject to the performance test requirements in 40 C.F.R. § 60.104a (j). H-101R is subject to the NO<sub>x</sub> performance test requirements of 40 C.F.R. §60.104a(i).
5. Process heaters H-101R, H-102R, and H-501R are subject to the monitoring requirements in 40 C.F.R. §§ 60.107a (a)(2) and (i)(1)(ii). Ergon will have H<sub>2</sub>S monitors on H-101R, H-102R, and H-501R.
6. H-101R is subject to the monitoring requirements in 40 C.F.R. §§ 60.107a (d)(1) through (4), and (i)(3)(i). They will have a NO<sub>x</sub> monitor on H-101R.
7. H-101R, H-102R, and H-501R are subject to the recordkeeping and reporting requirements in 40 C.F.R. §§ 60.108a (a), (c)(6), and (d).

**40 C.F.R. Part 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984**

40 C.F.R. Part 60 Subpart Kb was issued on April 8, 1987 by EPA for each storage vessel that has a capacity greater than or equal to 75 cubic meters (m<sup>3</sup>) that stores volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. As a result of the changes associated with this modification, Tanks 4001, 4004, 4006, 4014, and 4015 will be subject to 40 C.F.R. Part 60 Subpart Kb because they meet the definition of “modification” per 40 C.F.R. § 60.2. Tank 4063 which was added in 2012 will also be subject to 40 C.F.R. Part 60 Subpart Kb.

**40 C.F.R. Part 60 Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006**

40 C.F.R. Part 60 Subpart GGGa was issued by EPA for affected facilities in petroleum refineries on November 16, 2007. The new ISOM unit is subject to 40 C.F.R. 60 Subpart GGGa. While this equipment is not technically subject to 40 C.F.R. Part 60 Subpart VVa, most of the requirements under 40 C.F.R. 60 Subpart GGGa reference Subpart VVa requirements. EWVI proposes incorporating the new ISOM Unit into the existing program for monitoring of valves and pumps to show compliance with the testing, recordkeeping, and reporting requirements of 40 C.F.R. Part 60 Subpart GGGa. The revamp of the Unifiner process is the replacement of H-501 and the equipment leak emissions will not change. This process remains subject to 40 C.F.R. Part 60 Subpart GGGa.

#### **40 C.F.R. Part 63 Subpart Y - National Emission Standards for Marine Tank Vessel Loading Operations**

The Marine Barge Loading (MLD) at EWVI was installed in 1972. The MLD emissions will be controlled by the barge loading thermal oxidizer (MLDOX), which is being installed as part of this modification. The applicability review for 40 C.F.R. Part 63 Subpart Y is as follows:

1. Maximum achievable control technology (MACT) standards applicability.
  - 1.1. 40 C.F.R. § 63.560 (a) (1) - MACT standards in 40 C.F.R. § 63.562 (b) and (d) are applicable to existing and new sources with emissions of 10 or 25 tons, except as specified in 40 C.F.R. § 63.560 (d), and are applicable to new sources with emissions less than 10 and 25 tons except as specified in 40 C.F.R. § 63.560 (d). EWVI is not subject to these sections of 40 C.F.R. 63 Subpart Y because they are an existing source with emissions less than 10 and 25 tons.
  - 1.2. 40 C.F.R. § 63.560 (a) (2) - Existing sources with emissions less than 10 and 25 tons are not subject to the emissions standards in 40 C.F.R. §§ 63.562 (b) and (d). Therefore, EWVI is not subject to these sections of 40 C.F.R. 63 Subpart Y because they are an existing source with emissions less than 10 and 25 tons.
  - 1.3. 40 C.F.R. § 63.560 (a) (3) - The recordkeeping requirements of 40 C.F.R. § 63.567 (j) (4) and the emission estimation requirements of 40 C.F.R. § 63.565 (l) apply to existing sources with emissions less than 10 and 25 tons. EWVI is subject to this requirement.
  - 1.4. 40 C.F.R. § 63.560 (a) (4) - Existing sources with emissions less than 10 and 25 tons must meet the submerged fill standards of 46 C.F.R. § 153.282. This submerged fill requirement does not apply to petroleum refineries. EWVI is not subject to this requirement because they are a petroleum refinery.
2. Reasonably available control technology (RACT) standards applicability.
  - 2.1. 40 C.F.R. § 63.560 (b) (1) - RACT standards 40 C.F.R. §§ 63.562 (c) and (d) apply to sources with annual throughput of 10 million barrels of gasoline or 200 million barrels of crude oil. EWVI is not subject to this requirement because the throughput of gasoline is 1 million barrels and the throughput of crude oil is 7.3 million barrels.
  - 2.2. 40 C.F.R. § 63.560 (b) (2) - Sources with throughput less than 10 M barrels and 200 M barrels are not subject to the emissions standards in 40 C.F.R. §§ 63.562 (c) and (d).
3. 40 C.F.R. § 63.560 (c) - General provisions applicability. Owners or operators of “affected sources” must comply with the requirements of Subpart A in accordance with Table 1. EWVI is not subject to this requirement because it does not meet the definition of an “affected source” per 40 C.F.R. § 63.561.
4. 40 C.F.R. § 63.560 (d) (1) - Exemptions from MACT and RACT standards. This 40 C.F.R. Part 63 Subpart Y does not apply to emissions resulting from marine tank vessel loading operations with vapor pressures less than 1.5 psia at standard conditions, 20°C and 760 mm Hg.

Therefore, EWVI is not exempt from MACT and RACT standards when loading gasoline and light crude oil. Gasoline and light crude oil loading is subject to 40 C.F.R. § 63.565 (1) and 40 C.F.R. § 63.567 (j) (4) [Sections 5.3.4 and 5.4.5].

EWVI is exempt from MACT and RACT standards when loading diesel, kerosene, and lube oil because the vapor pressures of these products are less than 1.5 psia at standard conditions.

## Non-Applicability Determinations

<b>45CSR14</b>	Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration. It was determined by DAQ that the proposed facility changes are not a major change; thus, Ergon is not subject to 45CSR14.
<b>45CSR19</b>	Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution which Cause or Contribute to Nonattainment. It was determined by DAQ that the proposed project is not a major modification and no additional analysis is needed. Ergon is located in Hancock County, WV which is a PM <sub>2.5</sub> non-attainment area.
<b>40 C.F.R. Part 60 Subpart Dc</b>	National Standards of Performance for Small Industrial, Commercial, and Institutional Steam Generating Units does not apply to EWVI because although the process heaters, H-101R, H-102R, and H-501R, have maximum design heat inputs between 10 and 100 MMBtu/hr, they do not meet the definition a “steam generating unit.”
<b>40 C.F.R. Part 60 Subpart XX</b>	Standards of Performance for Bulk Gasoline Terminals does not apply to EWVI because the truck loading facility does not meet the definition of “bulk gasoline terminal.” Bulk gasoline terminal means any gasoline facility which receives gasoline by pipeline, ship or barge, and has a gasoline throughput greater than 75,700 liters per day. The gasoline loaded by EWVI is produced on site.
<b>40 C.F.R. Part 60 Subpart RRR</b>	National Standards of Performance for Volatile Organic Compounds (VOC) Emissions from Synthetic Organic Chemicals Manufacturing Industry (SOCMI) Reactor Processes does not apply to EWVI since it does not produce any of the chemicals listed in 40 C.F.R. § 60.707 as a product, co-product, by-product, or intermediate.
<b>40 C.F.R. Part 63 Subpart DDDDD</b>	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, or Institutional Boilers and Process Heaters (H-101R, H-102R, and H-501R) does not apply to EWVI process heaters, since the facility is not a major source of HAPs.
<b>40 C.F.R. Part 63 Subpart BBBBBB</b>	National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities does not apply to EWVI since the Newell facility is not an area source bulk gasoline bulk terminal, pipeline breakout station, pumping station, or bulk gasoline plant. EWVI produces gasoline on-site through refining processes.
<b>40 C.F.R. Part 63 Subpart JJJJJ</b>	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers, which is an area source MACT rule, does not apply to process heaters H-441 and H-1101 since they are fueled by natural gas (per 40 C.F.R. § 63.11195 (e)). Process heaters, H-101R, H-102R, H-501R, H-201, H-500s, H-600s, H-701, and H-901, are excluded from the boiler definition in 40 C.F.R. § 63.11237.

## Request for Variances or Alternatives

None

## Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

## **Comment Period**

Beginning Date:	Not Applicable for minor modifications
Ending Date:	N/A

## **Point of Contact**

All written comments should be addressed to the following individual and office:

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## **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

## **Response to Comments (Statement of Basis)**

No comments were received.